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Job characteristics and voluntary mobility in The Netherlands

Differential education and gender patterns?

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Abstract

Purpose – The purpose of this paper is to address the impact of the subjective evaluation of job characteristics on voluntary mobility, the impact of voluntary mobility on changes in these job characteristics, and differential education and gender patterns.

Design/methodology/approach – Ordered and multinominal logistic regression analysis and longitudinal panel analysis.

Findings – Dissatisfaction with one's wage, the match between job content and personal capacities, working hours, and the job in general cause voluntary external mobility. The latter two also increase the odds of voluntary internal mobility. Voluntary internal and external mobility in turn decreases dissatisfaction with several job characteristics. The higher the educational level, the weaker the impact of dissatisfaction with working hours on voluntary internal mobility. For women, wage dissatisfaction has a stronger impact on voluntary external mobility than for men. Moreover, dissatisfaction with the number of working hours and the job in general more often cause voluntary internal mobility for women than for men. The revenues of changing positions within or between firms, however, do not substantially differ across education and gender.

Originality/value – This paper shows that subjectively evaluated job characteristics are important push factors and result in voluntary mobility, and in some cases for women to a stronger degree than for men. Even though it could be expected that returns to voluntary mobility are lower for women and lower educated individuals, they do not differ substantially from the returns that men and higher educated workers receive.

Keywords Job mobility, Education, Gender, Job satisfaction, The Netherlands

Paper type Research paper

Introduction

Work plays an important role in the lives of people. Not only does it generate income and status, but content also matters to employees, as does personal development and social interaction with colleagues (Kalleberg, 1977; Tolbert and Moen, 1998; Johnson, 2001; Judge *et al.*, 2001; Kalleberg and Mastekaasa, 2001; Dwyer, 2004). Employees therefore strive for an optimal combination of work related returns and are assumed to be at their place when there is a high level of correspondence between characteristics that one

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wishes to achieve in a job, and actual aspects of the labor market position that one currently occupies (Kristov-Brown *et al.*, 2005).

Since in contemporary Western economies individuals strive to attain a maximally perceived level of work satisfaction, scholars often assume that dissatisfaction with job characteristics leads to mobility (Sørensen, 1975; Keith and McWilliams, 1995, 1997). Surprisingly, however, not that many studies actually employ longitudinal data to test whether dissatisfaction precedes job mobility, and whether job mobility in turn leads to less dissatisfaction. Notable exceptions are studies of Kalleberg and Mastekaasa (2001) and Gesthuizen and Dagevos (2008), who found positive influences of mobility on subjective evaluations of job characteristics.

Also, not much is known about the extent to which dissatisfaction with job characteristics leads to different mobility behavior for different social groups. There could be differences between lower and higher educated workers and men and women[1], in the resources that they can bring to the labor market and the opportunities they receive, which might result in differential impacts of dissatisfaction with job characteristics on actual voluntary mobility.

Furthermore, many studies that address the effects of mobility look at objective rewards such as income or status (Mincer, 1974; Sørensen, 1975; Blossfeld, 1986; Keith and McWilliams, 1995, 1997; Dwyer, 2004), and leave aside subjectively evaluated job characteristics. It has become increasingly clear that people strive for more than just income and status. Therefore, advance can be made by including more outcome variables, in particular subjective ones, in studies on the – differential – returns to mobility. This paper includes four subjectively evaluated job characteristics: income dissatisfaction, dissatisfaction with the hours worked, dissatisfaction with the match between education and work content, and general job dissatisfaction.

There are also vast differences between individuals in the opportunities they receive to achieve higher levels of job rewards. As a result of voluntary non-family-related job quits, women for instance receive less returns in terms of income than men (Keith and McWilliams, 1995, 1997). And compared to White workers, ethnic minorities more often suffer from downward occupational mobility (Branch McBrier and Wilson, 2004), as do lower educated compared to higher educated workers (Blossfeld, 1986; Gesthuizen, 2004). But regarding changes in other job characteristics than pay and status, less is known about the impact of mobility for different social groups.

In this paper, we will contribute to the existing knowledge on career changes in job characteristics, by answering the following central questions:

- To what extent does dissatisfaction with job characteristics influence voluntary mobility[2]?
- To what extent are there differential education and gender patterns in the impact of these job characteristics?
- To what extent does dissatisfaction with job characteristics change during a worker's career as a result of voluntary mobility?
- To what extent are there differential education and gender patterns in the impact of voluntary mobility on changes in dissatisfaction with job characteristics?

To answer these questions, nine waves (1986-2002) of a Dutch[3] longitudinal panel study on work-related subjects are used.

Voluntary mobility: the impact of dissatisfaction with job characteristics

Employees are assumed to strive for an as high as possible level of job rewards (Sørensen, 1975; Keith and McWilliams, 1995, 1997). Scholars of labor psychology assume that the resemblance between work preferences and actual job characteristics indicates the extent to which an employee is "at his or her place". The better this subjective person-job fit (the employee evaluates the characteristics of the job in relation to personal preferences), the stronger they feel, for instance, committed to the organisation, the more they are satisfied with their job in general, and the less they are inclined to quit the job and start searching for another (Kristof-Brown *et al.*, 2005). Contrarily, a disappointing person-job fit results in general dissatisfaction, the wish to leave, and eventually, if one is able to localise and secure a well-fitting alternative, in voluntary mobility.

We therefore assume that the more dissatisfied one is with the income, the weekly working hours, the match between education and work content, and the job in general, the more one is pushed out of the job. This leads to the expectation that employees who are more dissatisfied with the characteristics of their jobs, are more likely be voluntarily mobile (externally or internally), than employees who are less dissatisfied with the characteristics of their jobs (*H1*).

To arrive at unbiased influences of dissatisfaction with job characteristics on voluntary mobility, it is important to take account for as much as possible characteristics of persons, jobs, and labor markets that may serve as common causes of both job characteristics and voluntary mobility. Obviously, regarding individual supply characteristics, the more human capital an employee possesses (education, courses, experience/age) the more opportunities there are to be successful (Becker, 1964; Mincer, 1974) and thus the more attractive the positions are they occupy. At the same time, human capital indicators are powerful predictors of voluntary mobility and career progress (Mincer, 1974; Blossfeld, 1986; Shavit and Blossfeld, 1993; Wolbers, 2000; Gesthuizen, 2004). Besides education, in this paper, we account for age as a proxy of experience, and having followed courses during the occupational career. The composition of the household might also influence mobility opportunities. Having a partner and children might, for instance, increase regional commitment and therefore restraint the scope of one's labor market (Felmlee, 1982; Rosenfeld, 1992).

At the demand side of the labor market, we in the first place assume that employees with temporary contracts are often forced to change position, and in part do so voluntarily because they anticipate on departure on short notice. At the same time, temporary jobs might have less attractive characteristics than permanent positions (Scherer, 2004; Steijn *et al.*, 2006). Second, internal labor markets prevail in large companies, while employees of small firms must rely on external labor markets (Baron and Bielby, 1984; Althauser and Kalleberg, 1990). If within large companies there are better opportunities to secure the attractive positions, firm size influences both voluntary mobility and dissatisfaction with job characteristics. Third, industries are also known to have an impact on dominant career trajectories (Stinchcombe, 1979). Additionally, some industries provide more high-level jobs than others so that both job characteristics and mobility opportunities differ between industries. Fourth, under unfavorable economic circumstances (high unemployment, low economic growth) there are less opportunities for voluntary position changes. And since general mobility opportunities are low and vacancies are scarce, employees are probably less likely to

find that one perfectly fitting job, which results in a higher probability of job dissatisfaction under adverse economic circumstances.

Differential effects of dissatisfaction with job characteristics?

The first hypothesis implicitly assumes that the impact of dissatisfaction with job characteristics on mobility is similar across social groups. However, individuals who are active on the labor market differ in their resources and in the opportunities they receive irrespective of these resources. Why invest in mobility if perceived or real opportunities to improve are low or even absent?

Research on occupational opportunities shows that education protects against unemployment, ensures allocation into favorable labor market positions, and generates opportunities to improve them (Blau and Duncan, 1967; Mincer, 1974; Blossfeld, 1986; Shavit and Müller, 1998; Solga, 2002; Gesthuizen, 2004). As a result of lacking valuable resources the lower educated have fewer real opportunities to be successful in their career than the higher educated. Employers are generally more willing to hire higher educated individuals because they are better trainable and are likely to be more productive (Thurow, 1975; Wolbers *et al.*, 2001). In addition, perceived chances might also play a role. Occupational aspirations independently and positively affect occupational destinations (Sewell and Hauser, 1980), and higher educated individuals express higher occupational aspirations than lower educated individuals. Thus, their perceived chances of success might hold lower educated people back to actively invest in a more satisfying working life. The impact of dissatisfaction with job characteristics on voluntary mobility might therefore be weaker for lower educated employees than for higher educated employees (*H2*).

For men and women, the differential impact of dissatisfaction with job characteristics might arise from women receiving less opportunities than men to get ahead in their labor market career (Keith and McWilliams, 1995, 1997; Maume, 2004). This would lead us to expect that the impact of the subjectively evaluated job characteristics is weaker for women than for men. Sørensen (1975) and Keith and McWilliams (1995) argue that people change jobs if the gains outweigh the costs. If women are, or perceive to be, less able to get those jobs that would lead them to a attain a more satisfying working life, than for them dissatisfaction with job characteristics would less often result in voluntary mobility than for men. A large body of literature proves that after controlling for education, sector or other confounding influences, women have less career opportunities than men (Maume, 2004; Keith and McWilliams, 1995, 1997). The following expectation therefore is that the impact dissatisfaction with job characteristics on voluntary mobility is weaker for female than for male employees (*H3*).

Returns to mobility: job reward changes

If, as argued, a disappointing person-job fit results in general dissatisfaction and thus the wish to leave the job (Kristof-Brown *et al.*, 2005), and if employees strive for an as high as possible level of job rewards during their career, voluntarily changing positions at the labor market is one way to achieve this (Sørensen, 1975). Voluntary mobility (employee initiated mobility) is assumed to be goal oriented: individuals voluntarily change jobs within or between firms because they gain something from it: better wages, hours, content, etc. (Keith and McWilliams, 1995, 1997). Compared to "stayers" voluntary movers should experience an increase in job rewards.

Kalleberg and Mastekaasa (2001) used two waves of a Norwegian panel study and found these positive influences of voluntary mobility on several subjective job rewards. Compared to employees who do not change jobs, employees who voluntarily change jobs are thus expected to experience a decrease in dissatisfaction with job characteristics (*H4*).

Differential returns to mobility?

There could be several reasons why the lower educated receive less returns to mobility than the higher educated. First, they are not able to make similar steps on the career ladder as higher educated, because employers reward the higher expected productivity of the higher educated (Thurow, 1975). Second, the lower educated are dependent on jobs in segments of the labor markets where occupational markets prevail (Steijn *et al.*, 2006). As a result they might only be able to switch between similar kinds of jobs, with more or less similar characteristics. And third, as a result of the educational expansion combined with a slower increase in high-skilled jobs, higher educated employees are nowadays more likely to be overeducated for their jobs, particularly in their early careers. A substantial portion of the higher educated is "forced" to work in jobs beneath their abilities, most likely leading to, as Burris (2005) states, job dissatisfaction, turnover, and other social and economic costs. Thus, low job rewards lead to mobility, and since the level from which the move is made is relatively low, large steps are easily made and the returns to mobility are subsequently high. All arguments lead to the following expectation: the impact of voluntary mobility on changes in job rewards is weaker for lower educated than for higher educated employees (*H5*).

For women, similar opportunity arguments might hold as for lower educated employees. Compared to men, employers might reward women less in terms of favorable job characteristics, because they expect them to be less productive, not as a result of a lower level of abilities and skills, but because employers might perceive higher risks as a result of, for instance, the necessity to combine work and care. The impact of voluntary mobility on changes in job rewards is therefore expected to be weaker for female employees than for male employees (*H6*).

Data and variables

Since 1985, the Organization for Strategic Labor Market Research (OSA) conducts the labor supply panel (Fouarge *et al.*, 2006). From 1986 onwards, it was held every other year. The sample units are households, of which each individual is interviewed who is 16-64 years old and not in formal education. Each wave contains information about the way in which employees evaluate (aspects of) their job. Therefore, it is possible to determine changes in these job characteristics. Also, each wave the respondent was asked to describe the labor market career of the past two years, so that mobility between two waves becomes visible. Per wave 4,000 active or inactive members of the labor population are interviewed. In between waves, the panel looses more or less one-third of the respondents. Including new panel members who together form a representative reflection of the population in that year repairs this attrition[4]. In all, combining two successive waves each time delivers sufficient respondents to perform panel analyses and a sample that is representative for the time of interview. On average, 1,500 respondents remain per combination of two waves if we select people who were working at both times, and if we account for missing values.

The reason why we use this selection of years (there also is a 1985 wave) in the first place is that only after 1988 it is possible to distinguish internal from external mobility. And since causes and consequences of mobility might differ between both types, it is important to look at them separately. Since we extract determinants of mobility from the wave before, 1986 is the first year we need. Information from Time T (education, job characteristics, industry, etc.) is coupled with information from Time $T + 1$, in which it is determined in a retrospective manner whether the respondent was mobile in the past two years. This is how the panel structure that is used throughout this paper, is build up. And second, in these waves similar questions regarding the four job characteristics were available, so that it is possible to perform powerful panel analyses to assess changes in them under condition of voluntary mobility.

Voluntary mobility is separated into an external and internal component. Externally mobile employees have changed employers, internally mobile employees changed positions within the firm. To end up with all voluntary moves, we eliminated all involuntary – employer initiated – mobility from the dataset: changes as a result of reorganisation or closing (part of) the firm, ending temporary contracts, (the threat of) lay-off for other reasons, and the incidence of illness or disability.

Dissatisfaction with job characteristics we operationalise in such a way that a higher score points at, we assume, a worse match between job preferences and actual job characteristics. This would be the case if employees say that they are dissatisfied or by any other means characterise a job characteristic negatively. We include four job characteristics in our analyses. The first two are "how dissatisfied are you with jour *job in general*" and "with your *income*". Possible answers were very satisfied, satisfied, dissatisfied, and very dissatisfied. A third pertains to dissatisfaction with the match between capabilities and the job content. Respondents could evaluate this match as good, reasonable, moderate, and bad. The questionnaires also include the actual and preferred working hours per week. If they do not coincide, we assume that the respondent is dissatisfied with the working hours.

For highest attained education, the first group – the primary educated (Dutch: Basisschool) – contains the respondents who did not attain any certificate at the secondary level. Those who did are divided into two groups: lower secondary education (Dutch: Vbo (vocational)/Mavo (general)) and higher secondary education (Dutch: Mbo (vocational)/Havo (general)/Vwo (pre-university)). The fourth group, the tertiary educated, includes vocational college graduates (Dutch: Hbo) and university graduates (Dutch: Wo). Gender is coded in males and females.

Control variables at Time $T - 1$ are age, the presence of children in the household, having attended courses, socio-economic status (Ganzeboom *et al.*, 1992), type of contract, industry (Stinchcombe, 1979), firm size, the unemployment rate in the year of measurement, and economic growth in the year of measurement. Descriptive statistics can be found in Table I.

Methodology

The central analyses of this research are founded on two steps. First, we determine the relationship between job characteristics and voluntary mobility versus immobility. Since we consider voluntary mobility broken down into external and internal mobility, we estimate multinomial logistic regression models. To be sure that the causal time-order between determinants and mobility is clear, we distillate the determinants

	Minimum	Maximum	Mean
Mobility			
Immobility	0	1	0.77
Voluntary mobility	0	1	0.23
Voluntary external mobility	0	1	0.12
Voluntary internal mobility	0	1	0.11
Job characteristics at T − 1			
Dissatisfaction wage	1	4	2.48
Dissatisfaction match	1	4	1.48
Dissatisfaction hours	0	1	0.37
Dissatisfaction job	1	4	1.73
Job characteristics at T			
Dissatisfaction wage	1	4	2.43
Dissatisfaction match	1	4	1.41
Dissatisfaction hours	0	1	0.35
Dissatisfaction job	1	4	1.74
Gender			
Male	0	1	0.64
Female	0	1	0.37
Education			
Primary education	0	1	0.08
Lower secondary education	0	1	0.38
Higher secondary education	0	1	0.32
Tertiary education	0	1	0.21
Control variables			
Age 16-24	0	1	0.06
Age 25-34	0	1	0.28
Age 35-44	0	1	0.35
Age 45-54	0	1	0.26
Age 55-64	0	1	0.06
No children	0	1	0.31
Children age 0-3	0	1	0.16
Children age 4-12	0	1	0.23
Children age 13-18	0	1	0.16
Children age 19 and older	0	1	0.15
No courses	0	1	0.76
One or more courses, self paid	0	1	0.05
One or more courses, boss paid	0	1	0.18
One or more courses, self and boss paid	0	1	0.01
Socio-economic status	0	1	0.48
Permanent contract	0	1	0.94
Temporary contract	0	1	0.05
Other contract	0	1	0.01
Firm 1-9 employees	0	1	0.12
Firm 10-19 employees	0	1	0.10
Firm 20-99 employees	0	1	0.28
Firm 100-499 employees	0	1	0.25
Firm 500 + employees	0	1	0.25
Traditional primary industries	0	1	0.01
Classical capitalist industries	0	1	0.05
Competitive educated industries	0	1	0.11

(*continued*)

Table I.
Descriptive statistics

	Minimum	Maximum	Mean
Large-scale engineering-based industries	0	1	0.09
Small competitive trade and services	0	1	0.18
Professional services	0	1	0.32
Bureaucratic services	0	1	0.12
Unemployment rate	2.00	7.90	5.37
Economic growth percentage	1.30	4.70	3.10

Note: Valid *N* after listwise deletion is 8,979
Source: OSA (1986-2002)

Table I.

from wave Time $T-1$, and mobility from wave Time T. The unemployment percentage and percentage economic growth are based on year totals of the year prior to the measurement of mobility.

Each time a respondent is present in two subsequent waves, he or she is included in the dataset. The same person can therefore return more than ones, which causes dependence among units of measurements. Standard errors are thus underestimated, which we overcome by correcting them using the cluster option within STATA[5].

We estimate four models each time. The first one contains all control variables, education, gender, and all measurements of dissatisfaction with job characteristics, except dissatisfaction with the job in general. We include this variable in the second model. The reason is that general dissatisfaction might be considered as a variable in which the respective employee has weighted all positive and negative characteristics against each other. Simultaneously including this indicator with the more specific job characteristics would disguise the influence of the last mentioned indicators. The third model includes the interaction between education and dissatisfaction with job characteristics, the fourth between gender and dissatisfaction.

A part of the respondents is mobile more than ones in the time span of two years between two subsequent waves. We decided to exclude these respondents (4 percent) from the analyses. Obviously, for these employees we are unable to directly relate the changes in job characteristics to the mobility event.

This brings us at the second step of the central analyses: the returns to mobility. For all job characteristics, we have information in two waves. If we consider a job characteristic at Time T as the dependent variable, while including the same variable at Time $T-1$ at the independent side of the equation and subsequently look at the influence of voluntary mobility, the mobility coefficient expresses the change in the job characteristic as a consequence of this change in labor market positions, compared to employees who, in the same time span, were immobile (Kessler and Greenberg, 1981; Allison, 1990; Kalleberg and Mastekaasa, 2001). Important is that the mobility event happened between Times $T-1$ and T. The retrospective design of the mobility module makes that this is the case[6]. Dependent upon the measurement level of the job characteristic, we use logistic or ordered logistic regression techniques. We again correct the estimations for clustered units of analysis. There are three models. The first includes education, gender, voluntary mobility, and all control variables. The second model includes an interaction between voluntary mobility and education, and the third between voluntary mobility and gender. These interaction coefficients depict the extent to which the higher educated and women experience more or less changes in

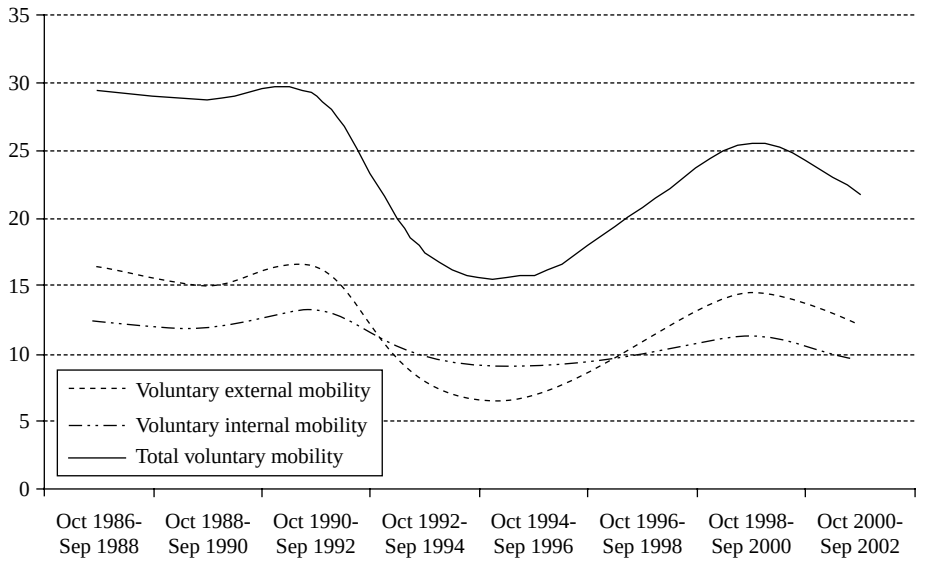
dissatisfaction as a result of mobility, as compared to lower educated workers and men, respectively.

Results

Within the two years between two times of measurement, many employees voluntarily change employers or positions within the firm (Figure 1). Between 1986 and 1992 the percentage was more or less 30, after which it declined to 15 in the mid-1990s. After that it started to increase again, but without reaching the height that was found at the end of the 1980s. In economically prosperous times (end of the 1980s, and 2000-2002), voluntary mobility is much more widespread than under adverse economic conditions (around 1993-1994). But in general voluntary mobility is a widespread phenomenon in The Netherlands.

Table II shows the distribution of voluntary mobility and job rewards across education and gender. In general, the higher ones education, the more often one voluntarily changes between or within firms. The only exception is the relatively low percentage of external mobility for the tertiary educated. The higher educated are less dissatisfied with their income, less dissatisfied with the match between capabilities and job content, more dissatisfied with their working hours, and somewhat less dissatisfied with their jobs in general. Female employees more often change employers than male employees. For voluntary internal mobility, we find similar levels for men and women. Women are more often dissatisfied with their wage than men. There are no other substantial gender differences.

The findings that relate to *H1-H3* can be found in Table III. There are strong relationships between dissatisfaction with job characteristics in wave $T-1$ and voluntary mobility in wave T (Models M1 and M2). Employees who are dissatisfied with their wage, the match, and the hours, are relatively often externally mobile (as compared



Source: OSA 1986-2002

Figure 1.
Voluntary internal and external mobility in The Netherlands 1986-2002, $N = 12{,}025$

	Voluntary mobility (%)		Subjectively evaluated job rewards (dissatisfaction with)			
	External	Internal	Wage	Match	Hours	Job
Education						
Primary	8.7	6.6	2.61	1.49	0.35	1.77
Lower secondary	11.3	9.4	2.51	1.52	0.37	1.74
Higher secondary	13.4	12.7	2.48	1.52	0.39	1.75
Tertiary	11.4	13.5	2.36	1.41	0.40	1.73
$p\Delta$primary/tertiary	0.02	0.00	0.00	0.02	0.01	0.03
Gender						
Male	10.0	11.1	2.43	1.48	0.38	1.75
Female	14.9	11.7	2.58	1.52	0.39	1.73
$p\Delta$male/female	0.00	0.16	0.00	0.06	0.24	0.18

Table II.
The distribution of mobility and job rewards across education and gender

Note: The presented significance of the differences between educational groups and gender are based on *t*-tests
Source: OSA (1986-2002)

to being immobile) compared to employees who are less dissatisfied. General job dissatisfaction also predicts voluntary external mobility, and after including it (Model M2) the effects of the other job characteristics become weaker. Furthermore, hours and job dissatisfaction lead to a higher likelihood of being internally mobile compared to staying in the present job. These findings confirm the first hypothesis and indicate that dissatisfaction with job characteristics functions as a push factor and subsequently results in actual voluntary mobility.

From Models M1, we can conclude that as compared to their counterparts, higher educated employees and women are more often voluntarily mobile. Models M3 show the extent to which the impact of dissatisfaction with job characteristics is stronger or weaker for lower educated employees than higher educated individuals. There are hardly any educational differences. The single interaction that does show educational differences ($p < 0.10$) is opposite to the expectations: dissatisfaction with the working hours leads to less voluntary internal mobility for the higher educated than for the lower educated. The second hypothesis must be rejected.

Models M4 show the differential impact of dissatisfaction with job characteristics for men and women. One general finding is that none of the job characteristics shows a weaker impact for women (*H3* is thus rejected). To the contrary, fewer real labor market opportunities do not refrain women from actual mobility. In three out of eight cases, dissatisfaction has a stronger impact on voluntary mobility than for men. Dissatisfaction with the working hours shows a stronger impact for females on the odds of voluntary internal mobility versus immobility ($p < 0.10$). Dissatisfaction with the wage leads to more voluntary external mobility for women as compared to men ($p < 0.10$). And finally, general job dissatisfaction has a stronger impact on internal voluntary mobility for women than for men ($p < 0.10$).

What are the returns to mobility in terms of changes in job rewards and how do they differ between educational groups and between men and women? *H4-H6* were deduced to answer these questions, and will be tested empirically using the information in Tables IV and V.

Table III.
Voluntary mobility regressed on job characteristics, eqducation and gender, multinomial logit models corrected for clustering

	Voluntary mobility (T)							
	External vs immobile				Internal vs immobile			
	M1	M2	M3	M4	M1	M2	M3	M4
Job characteristics ($T-1$)								
Dissatisfaction wage (1-4)	0.13***	0.08**	0.01	0.10**	0.04	0.03	0.03	0.05
Dissatisfaction match (1-4)	0.12***	0.06	0.05	−0.01	0.05	0.02	0.16	0.02
Dissatisfaction hours (0/1)	0.21***	0.18***	−0.04	0.11	0.23***	0.23***	0.59***	0.14*
Dissatisfaction job (1-4)		0.38***	0.13	0.33***		0.11**	0.07	0.04
Education and gender ($T-1$)								
Primary education (ref.)								
Lower secondary education	0.11	0.13	−0.12	0.13	0.23	0.24	0.39*	0.24
Higher secondary education	0.24*	0.24*	−0.26	0.25*	0.48***	0.48***	0.77**	0.49***
Tertiary education	0.33**	0.32*	−0.45	0.32*	0.65***	0.65***	1.09**	0.66***
Male (ref.)								
Female	0.32***	0.33***	0.32***	−0.32	0.17**	0.18**	0.17**	−0.18
Interactions ($T-1$)[a]								
Education × diss. wage			0.00				−0.05	
Education × diss. match			0.03				0.00	
Education × diss. hours			0.08				−0.13*	
Education × diss. job			0.09				0.01	
Female × diss. wage				0.15*				0.02
Female × diss. match				−0.03				−0.05
Female × diss. hours				0.17				0.22*
Female × diss. job				0.12				0.18*
Constant	−1.72***	−2.23***	−1.80***	−1.97***	−2.43***	−2.58***	−2.86	−2.45***
Number of observations	10,766	10,766	10,766	10,766				
−2 log likelihood	−7,155	−7,123	−7,118	−7,116				

Notes: *Significant at *0.10, **0.05 and ***0.01; to allow for correlation across mobility choices, multinomial probit models were estimated as well; neither the signs nor the significance levels of the independent effects changed, except for the significance of the interactions of education and gender with dissatisfaction with the working hours; they dropped slightly, to 0.139 and 0.105, respectively; all models include controls for age, children, courses, socio-economic status, contract, firm size, industry, the unemployment rate and economic growth; estimates are available upon request; [a]the interactions with education are based on a linear measurement of education (1-4)

Source: OSA (1986-2002)

Table IV.
Changes in job characteristics regressed on mobility, education and gender, and their interactions, ordered logit models corrected for clustering

	Dissatisfaction wage (T)			Dissatisfaction match (T)		
	M1	M2	M3	M1	M2	M3
Job characteristics ($T-1$)						
Dissatisfaction wage (1-4)	1.30***	1.30***	1.30***			
Dissatisfaction match (1-4)				0.78***	0.76***	0.78***
Education and gender ($T-1$)						
Primary education (ref.)						
Lower secondary education	−0.14*	−0.14*	−0.14*	0.15	0.16	0.15
Higher secondary education	−0.22***	−0.22**	−0.22***	0.21*	0.22*	0.20*
Tertiary education	−0.34***	−0.33***	−0.33***	0.30**	0.32**	0.30**
Male (ref.)						
Female	0.20***	0.20***	0.20***	0.01	0.01	0.04
Mobility (between $T-1$ and T)						
No mobility (ref.)						
Voluntary internal	−0.15**	−0.07	−0.15*	0.09	−0.04	0.15
Voluntary external	−0.19***	−0.22	−0.19**	0.07	0.31	0.12
Interactions [a]						
Education × vol. internal		−0.03			0.04	
Education × vol. external		0.01			−0.08	
Female × vol. internal			−0.00			−0.16
Female × vol. external			0.01			−0.10
/cut 1	−0.09	−0.09	−0.09	2.37	2.38	2.38
/cut 2	3.09	3.09	3.09	3.33	3.34	3.34
/cut 3	5.94	5.94	5.94	4.06	4.07	4.07
Number of observations	10,575	10,575	10,575	9,453	9,453	9,453
−2 log likelihood	−10,246	−10,246	−10,246	−6,788	−6,787	−6,787

Notes: Significant at *0.10, **0.05 and ***0.01; all models include controls for age, children, courses, socio-economic status, contract, firm size, industry, the unemployment rate and economic growth; estimates are available upon request; [a]the interactions with education are based on a linear measurement of education (1-4)
Source: OSA (1986-2002)

	Dissatisfaction hours (T)			Dissatisfaction job (T)		
	M1	M2	M3	M1	M2	M3
Job characteristics ($T-1$)						
Dissatisfaction hours (0/1)	0.99***	0.99***	0.99***			
Dissatisfaction job (1-4)				1.28***	1.28***	1.28***
Education and gender ($T-1$)						
Primary education (ref.)						
Lower secondary education	−0.05	−0.05	−0.05	−0.10	−0.09	−0.10
Higher secondary education	0.02	0.03	0.02	−0.15	−0.12	−0.15*
Tertiary education	0.00	0.03	0.00	−0.02	0.03	−0.02
Male (ref.)						
Female	−0.00	−0.00	−0.03	−0.03	−0.03	−0.03
Mobility (between $T-1$ and T)						
No mobility (ref.)						
Voluntary internal	−0.08	0.28	−0.09	−0.28***	−0.01	−0.21***
Voluntary external	−0.17**	−0.26	−0.25***	−0.70***	−0.46**	−0.76***
Interactions [a]						
Education × vol. internal		−0.13			−0.09	
Education × vol. external		0.03			−0.09	
Female × vol. internal			0.04			−0.18
Female × vol. external			0.19			0.13
/cut 1				1.28	1.31	1.28
/cut 2				4.70	4.73	4.70
/cut 3				6.49	6.51	6.49
Constant	−2.35***	−2.34***	−2.34***			
Number of observations	10,152	10,152	10,152	10,619	10,619	10,619
−2log Likelihood	−6,177	−6,175	−6,176	−9,076	−9,074	−9,074

Notes: Significant at *0.10, **0.05 and ***0.01; all models include controls for age, children, courses, socio-economic status, contract, firm size, industry, the unemployment rate and economic growth; estimates are available upon request; [a]the interactions with education are based on a linear measurement of education (1-4)

Source: OSA (1986-2002)

Table V.
Changes in job characteristics regressed on mobility, education and gender, and their interactions, ordered and binary logit models corrected for clustering

Several findings are in accordance with the fourth hypothesis. Employees who voluntarily change jobs within the firm experience a substantial reduction in dissatisfaction with the wage (Table IV, M1), and in general job dissatisfaction (Table V, M1). Voluntary external mobility leads to a substantial reduction in wage dissatisfaction (Table V, M1), in dissatisfaction with the working hours (Table V, M1) and in general dissatisfaction (Table V, M1). We find neither significant influences of voluntary mobility on dissatisfaction with the match between capabilities an job content, nor does internal mobility alter ones evaluation of the hours worked. Nevertheless, in general *H4* is confirmed: voluntary internal and external mobility decrease dissatisfaction with job characteristics.

Models M1 further show that the higher one's education, the more wage dissatisfaction decreases. However, as compared to the lower educated, during the career the dissatisfaction with the match increases for the higher educated, while for the other job rewards there are no significant differences in the changes that lower and higher educated experience. For women, the dissatisfaction with the wage becomes stronger as compared to men, while there are no gender differences for the other subjectively evaluated job characteristics.

In Models M2, the differential education pattern can be found in the returns to mobility. In not one single case, the impact of voluntary mobility on changes in dissatisfaction with characteristics differs between lower and higher educated employees. *H5* is therefore rejected. We saw that the lower educated are less mobile than the higher educated and therefore on average improve less during their career, but if they do change jobs, the returns are comparable to the returns that higher educated employees receive.

H6 argued that women receive fewer returns to mobility than men, irrespective of the type of job rewards. As none of the interactions with gender reaches significance, it has to be rejected.

Conclusion

This paper tries to contribute to the existing knowledge on career changes in job characteristics. For that purpose, we used nine waves (1986-2002) of a Dutch longitudinal panel study on work-related subjects. In many mobility studies, it is assumed that a dissatisfaction with job characteristics pushes employees out of their jobs, and lead them to prefer other jobs with more favorable characteristics. If employees strive for a maximum level of these job rewards, dissatisfaction with job characteristics should strongly influence actual voluntary mobility, *ceteris paribus*.

One aim of this paper was to empirically test this claim. After taking account for confounding factors at the supply and demand side of the labor market, we indeed found that the more dissatisfied an employee was with the wage, the match between job content and capabilities, the hours worked, and the job in general, the more likely he or she was to be externally mobile on a voluntary basis. Furthermore, voluntary internal mobility is related to dissatisfaction with the working hours and general job dissatisfaction. The results of this study therefore strongly suggest that dissatisfaction with job characteristics functions as a push factor, and results in actual voluntary job and function changes.

A second aim of the study was to assess whether low job rewards generate different mobility patterns across education and gender. Lower educated employees and women on average have less labor market opportunities than higher educated and men, and

therefore the (estimated) gains of changing jobs for them might outweigh the costs to a lesser degree than for higher educated workers and men.

An important conclusion is that dissatisfaction with job characteristics does by no means generate differential mobility patterns across educational groups and across gender in the way that we predicted theoretically. Across educational groups only one marginally significant interaction was found, which indicated that as compared to lower educated workers, dissatisfaction with the working hours leads to less internal voluntary mobility for higher educated employees. Possibly, in higher educated jobs there are fewer opportunities to work less on a weekly basis, and signaling that one is thinking of working less, might decrease promotion opportunities. The result might be that many higher educated refrain from working less hours, even if they actually prefer it.

With regard to the differential impact of dissatisfaction with job characteristics for men and women, we found that, against our expectations, none of the job rewards showed a weaker impact for women. To the contrary, dissatisfaction with the working hours showed a marginally stronger impact for females on the odds of voluntary internal mobility, and dissatisfaction with the wage resulted in more voluntary external mobility for women as compared to men. General job dissatisfaction also had a stronger impact on internal voluntary mobility for women than for men. In sum, our results show no evidence that fewer (perceived) opportunities refrain vulnerable social groups (women, the lower educated) who are dissatisfied with their job characteristics from actively trying to improve the situation.

Then why does dissatisfaction for women lead to a higher degree of voluntary mobility than for men? An explanation might be that for women it is less "costly" to move to a different job or position than for men. Even though occupational careers of men and women become more and more alike, in many instances the job of the man is still considered to be more important for the household as a whole than the woman's job (in The Netherlands women mostly work part time and earn less then men, even in similar jobs). The negative consequences (for instance for income or security) of taking some risk by changing positions, might therefore be less hard to deal with for women then for men. It might therefore be that for women it is "less difficult" to leave a less preferred job than for men.

This study further aimed to advance upon previous research by looking at returns to mobility for dissatisfaction with several subjectively evaluated job characteristics, as opposed to most studies that often only look at objective job rewards such as income and status. We assessed these returns to mobility by employing panel analyses, and subsequently investigated whether differential returns to voluntary mobility were generated across education and gender. It could be concluded that voluntary internal and external mobility result in substantial reductions in dissatisfaction levels.

Contrary to our expectations however, for lower educated workers the returns to voluntary mobility did not differ from the returns for the higher educated, nor did the returns differ between men and women. It seems not to be the case that differences in opportunity result in differential education and gender patterns in the returns to mobility.

This finding has two implications. First, the lower educated are less often voluntarily mobile, and as voluntary mobility proved to positively affect the evaluation of job characteristics, the lower incidence of mobility among the lower educated itself results in increasing gaps between the lower and higher educated during the occupational career. Probably, the lower educated perceive their opportunities to be

lower and thus change jobs less often. But the invariance in the returns to mobility suggests that in The Netherlands, a more mobile population of lower educated workers could have substantial positive consequences.

Second, we found that dissatisfaction with job characteristics in some cases resulted in a higher degree of voluntary mobility for women than for men, but at the same time for women voluntary mobility does not lead to a sharper reduction in dissatisfaction than for men. Women therefore do not gain more from mobility than men, but since women are voluntarily mobile more often than men, and since this mobility in itself reduces dissatisfaction, by implication the average dissatisfaction-gap between men and women closes as occupational careers go by.

Notes

1. Differences between the native majority and ethnic minorities could have been mentioned as well, but the longitudinal panel does not contain a representative group of ethnic minorities in The Netherlands.
2. We deliberately excluded involuntary mobility, because its causes and consequences are likely to differ from the causes and consequences of voluntary mobility. This makes it a topic for a different article. Previous model estimations in which involuntary mobility was included, however, show that the conclusions for voluntary mobility are similar.
3. Compared to other European countries, The Netherlands show a relatively high level of external mobility (Gesthuizen and Dagevos, 2005). In 2001, more than 20 percent of the employees changed employers, which was only 4 percent less than Europe's leader Great Britain. Obviously, voluntary mobility is highest under positive economic circumstances (see Figure 1 in the results section). In The Netherlands, this was the case in the late 1980s and the early 1990s, as well as from 1998 until 2002. Economic circumstances were less favorable in the early 1980s and in 2003/2004, when unemployment rates peaked.
4. It is unclear to what extent this attrition is selective regarding voluntary mobility. If particularly mobile employees leave the panel, this would result in an underestimation of the relationship between job characteristics and mobility, and possibly also in an underestimation of the returns to mobility.
5. In addition to clustering on respondent identification numbers, we also ran models with a clustering on household identification number. The main reason is that mobility decisions and returns might be dependent on one's spouse. The results based on both types of clustering are similar, with only one exception. After clustering on the basis of households, after an internal move lower educated individuals are significantly less dissatisfied with their working hours than higher educated people.
6. Nevertheless, there still is no certainty about the causal order of our variables. Mobility and job characteristics decisions can be made simultaneously. In other words, anticipating on a successful job switch in terms of the features of the new job influences the mobility decision. This could mean that in our research the transitions that we observe are by definition the more successful ones, because employees are less likely to move if they are uncertain about the gains. Nevertheless, the progress in job characteristics could not have been made without the voluntary move, and therefore the consequences of the voluntary moves in our research are meaningful in itself.

References

Allison, P. (1990), "Change scores as dependent variables in regression analyses", in Clogg, C.C. (Ed.), *Sociological Methodology*, Basil Blackwell, Oxford.

Althauser, R.P. and Kalleberg, A.L. (1990), "Identifying career lines and internal labor markets within firms: a study in the interrelationships of theory and methods", in Breiger, R.L. (Ed.), *Social Mobility and Social Structure*, Cambridge University Press, Cambridge.

Baron, J.N. and Bielby, W.T. (1984), "The organization of work in a segmented economy", *American Sociological Review*, Vol. 49, pp. 454-73.

Becker, G. (1964), *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*, National Bureau of Economic Research, New York, NY.

Blau, P. and Duncan, O.D. (1967), *The American Occupational Structure*, Wiley, New York, NY.

Blossfeld, H.-P. (1986), "Career opportunities in the Federal Republic of Germany: a dynamic approach to the study of life-course, cohort, and period effects", *European Sociological Review*, Vol. 3, pp. 208-25.

Branch McBrier, D. and Wilson, G. (2004), "Going down? Race and downward occupational mobility for white-collar workers in the 1990s", *Work and Occupations*, Vol. 31, pp. 283-322.

Burris, V. (2005), "Overeducation then and now", *Work and Occupations*, Vol. 32, pp. 319-21.

Dwyer, R.E. (2004), "Downward earnings mobility after voluntary employer exits", *Work and Occupations*, Vol. 31, pp. 111-39.

Felmlee, D.H. (1982), "Women's job mobility processes within and between employers", *American Sociological Review*, Vol. 47, pp. 142-51.

Fouarge, D., Gielen, A., Grim, R., Kerkhofs, M., Román, A., Schippers, J. and Wilthagen, T. (2006), *Trendrapport Aanbod van Arbeid 2005*, Organisatie voor Strategisch Arbeidsmarktonderzoek, Tilburg.

Ganzeboom, H.B.G., De Graaf, P.M. and Treiman, D.J. (1992), "A standard international socio-economic index of occupational status", *Social Science Research*, Vol. 21, pp. 1-56.

Gesthuizen, M. (2004), *The Life-Course of the Low-Educated in The Netherlands: Social and Economic Risks*, Radboud University Nijmegen, Nijmegen.

Gesthuizen, M. and Dagevos, J. (2005), *Arbeidsmobiliteit in Goede Banen: Oorzaken van Baan-en Functiewisselingen en Gevolgen voor de Kenmerken van het Werk*, Social and Cultural Planning Office of The Netherlands, Den Haag.

Gesthuizen, M. and Dagevos, J. (2008), "Mismatching of persons and jobs in The Netherlands: consequences for the returns to mobility", *Work, Employment & Society*, Vol. 22, pp. 485-506.

Johnson, M. (2001), "Change in job values during the transition to adulthood", *Work and Occupations*, Vol. 28, pp. 315-45.

Judge, T.A., Thoresen, C.J., Bono, J.E. and Patton, G.K. (2001), "The job satisfaction-job performance relationship: a qualitative and quantitative review", *Psychological Bulletin*, Vol. 127, pp. 376-407.

Kalleberg, A.L. (1977), "Work values and job rewards: a theory of job satisfaction", *American Sociological Review*, Vol. 42, pp. 124-43.

Kalleberg, A.L. and Mastekaasa, A. (2001), "Satisfied movers, committed stayers. The impact of job mobility on work attitudes in Norway", *Work and Occupations*, Vol. 28, pp. 183-209.

Keith, K. and McWilliams, A. (1995), "The wage effects of cumulative job mobility", *Industrial & Labor Relations Review*, Vol. 49, pp. 121-37.

Keith, K. and McWilliams, A. (1997), "Job mobility and gender-based wage growth differentials", *Economic Inquiry*, Vol. 3, pp. 320-33.

Kessler, R.C. and Greenberg, D.F. (1981), *Linear Panel Analysis: Models of Quantative Change*, Academic Press, New York, NY.

Kristof-Brown, A.L., Zimmerman, R.D. and Johnson, E.C. (2005), "Consequences of individuals" fit at work: a meta-analysis of person-job, person-organisation, person-group, and person-supervisor fit", *Personnel Psychology*, Vol. 58, pp. 281-342.

Maume, D.J. (2004), "Is the glass ceiling a unique form of inequality? Evidence from a random-effects model of managerial attainment", *Work and Occupations*, Vol. 31, pp. 250-74.

Mincer, J. (1974), *Schooling, Experience, and Earnings*, Columbia University Press, New York, NY.

Rosenfeld, R.A. (1992), "Job mobility and career processes", *Annual Review of Sociology*, Vol. 18, pp. 39-61.

Scherer, S. (2004), "Stepping-stones or traps? The consequences of labour market entry positions on future careers in West Germany, Great Britain and Italy", *Work, Employment & Society*, Vol. 18, pp. 369-94.

Sewell, W.H. and Hauser, R.M. (1980), "The Wisconsin longitudinal study of social and psychological factors in aspirations and achievements", in Kerckhoff, A.C. (Ed.), *Research in Sociology of Education and Socialization*, JAI Press, Greenwich, CT, pp. 59-101.

Shavit, Y. and Blossfeld, H.-P. (Eds) (1993), *Persistent Inequality: Changing Educational Attainment in Thirteen Countries*, Westview Press, Boulder, CO.

Shavit, Y. and Müller, W. (1998), *From School to Work: A Comparative Study of Educational Qualifications and Occupational Destinations*, Clarendon Press, Oxford.

Solga, H. (2002), "Stigmatization by negative selection". Explaining less-educated people"s decreasing employment opportunities", *European Sociological Review*, Vol. 18, pp. 159-78.

Sørensen, A.B. (1975), "The structure of intragenerational mobility", *American Sociological Review*, Vol. 40, pp. 456-71.

Steijn, A.J., Need, A. and Gesthuizen, M. (2006), "Well begun, half done? Long-term effects of labour market entry in The Netherlands, 1950-2000", *Work, Employment & Society*, Vol. 20, pp. 453-72.

Stinchcombe, A.L. (1979), "Social mobility in industrial labor markets", *Acta Sociologica*, Vol. 22, pp. 217-45.

Thurow, L. (1975), *Generating Inequality*, Basic Books, New York, NY.

Tolbert, P.S. and Moen, P. (1998), "Men's and women's definitions of 'good' jobs", *Work and Occupations*, Vol. 25, pp. 168-94.

Wolbers, M.H.J. (2000), "The effects of level of education on mobility between employment and unemployment in The Netherlands", *European Sociological Review*, Vol. 16, pp. 185-200.

Wolbers, M.H.J., De Graaf, P.M. and Ultee, W.C. (2001), "Trends in occupational returns to educational credentials in The Netherlands: changes in structures and in the association?", *Acta Sociologica*, Vol. 44, pp. 5-19.

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